

George C. Marshall Space Flight Center Marshall Space Flight Center, Alabama 35812

## ORGANIZATIONAL INSTRUCTION

# Flight Projects Directorate Ground Systems Department FD40

# Remote Servicing Plan

### **Revision A**

# APPROVAL NAME TITLE Original Signed by Manager, Ground Systems Department Ann R. McNair APPROVAL DATE DATE March 14, 2001

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#### **DOCUMENT HISTORY LOG**

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		9/14/99	Baseline version
Revision	Rev. A	3/14/01	Document reformatted to Flight Projects Directorate standard template.

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#### 1.0 SCOPE

#### 1.1 Scope

This instruction pertains to hardware & software that the Flight Projects Directorate (FPD) supports for external Enhanced HOSC Systems (EHS) installations, such as the Chandra X-Ray Telescope Operations Control Center, and the International Space Station (ISS) remote Telescience Support Centers (TSCs).

#### 1.2 Purpose

The purpose of this instruction is to describe the process used to provide the hardware and software support to external EHS installations.

#### 1.3 Applicability

This instruction is applicable to the Ground Systems Department (GSD) of the Flight Projects Directorate and the users of the remote EHS installations.

#### 2.0 APPLICABLE DOCUMENTS

FPD-OI-FD40.10 HOSC Problem Report

MSFC-PLAN-2929 Configuration Management Plan for the HOSC

#### 3.0 ACRONYMS and DEFINITIONS

#### 3.1 Acronyms

ECR Engineering Change Request

EHS Enhanced HOSC System

FPD/FD Flight Projects Directorate

GSD Ground Systems Department

HOSC Huntsville Operations Support Center

HPR HOSC Problem Report

ISS International Space Station

N/A Not Applicable

NASA National Aeronautics and Space Administration

TSC Telescience Support Center

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#### 3.2 Definitions

<u>Engineering Change Request</u> A proposed engineering change used by MSFC personnel to submit documentation for initial baselining or to process changes to the baseline for evaluation and disposition by the appropriate Configuration Control Board.

**Enhanced HOSC System** The Enhanced HOSC System consists of the updated capabilities of the HOSC data systems. It incorporates all data systems required to perform data acquisition and distribution, telemetry processing, commanding, database services, mission support services, as well as system monitor and control services.

<u>Huntsville Operations Support Center</u> The Huntsville Operations Support Center is a Marshall Space Flight Center facility that provides users the tools necessary for monitoring, commanding, and controlling various elements of space vehicles, payloads, and science experiments.

<u>Telescience Support Center</u> The Telescience Support Center is a NASA funded facility that provides the capability to plan and operate on-orbit facility class payloads and experiments, other payloads and experiments, and instruments.

#### 4.0 INSTRUCTIONS

#### 4.1 Modification Need Identified

A need for modification of an external EHS installation is identified.

RESPONSIBLE PARTY: N/A

#### **4.2 Problem Type Determination**

The nature of the problem is determined to be either of a hardware/software nature or a change in engineering requirements.

RESPONSIBLE PARTY: N/A

#### **4.3 Problem with Intended Operations**

If a hardware or software problem occurs with intended operations, refer to and use the FPD's HOSC Problem Report process. This process is documented in FPD-OI-FD40.10, HOSC Problem Report.

RESPONSIBLE PARTY: User

#### **4.4 Engineering Change Request**

If the customer requests a change in some aspect of engineering for Chandra, refer to and use the FPD's Engineering Change Request process.

RESPONSIBLE PARTY: User

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#### 5.0 NOTES

None

#### 6.0 SAFETY PRECAUTIONS AND WARNING NOTES

None

#### 7.0 APPENDICES, DATA, REPORTS, AND FORMS

None

#### 8.0 QUALITY RECORDS

The Quality Records for this Organizational Instruction are listed in the table below.

Record Title	Description of Record	Authority	Retention	Notes
Engineering Change Request (ECR)	See MSFC-PLAN-2929.	MSFC-PLAN-2929	See MSFC-PLAN- 2929.	
HOSC Problem Report (HPR)	Used to report problems with hardware, software, facility, or other services provided by the HOSC.	FPD-OI-FD40.10	Retain for 5 years after HPR's have been closed.	

#### 9.0 TOOLS, EQUIPMENT, AND MATERIALS

None

#### 10.0 PERSONNEL TRAINING AND CERTIFICATION

None

#### 11.0 FLOW DIAGRAM

Figure 1 graphically depicts the process stated in Section 4.0 of this document.

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FIGURE 1: Remote Servicing Plan Process

